October 4, 2019

MEMORANDUM FOR: Distribution Email

FROM: Chris Caruso Magee
Configuration Manager, NCEP Central Operations

SUBJECT: Scheduled Operational Changes and Upgrades for CPC, EMC, OPC, and WPC

Climate Prediction Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of October 7, 2019:

None

The following RFCs are in progress:

None

The following NCO RFCs which may affect CPC are scheduled to be implemented the week of October 7:

RFC 6119 - Migrate NFS volumes from phase 1 NetApp to IDP cluster. There will be downtime of 20 min to 1 hour per volume during the cutover process. This is a multi-day RFC. Migrations will be performed on October 7 and 8. This week's changes are being made for NCO/SDB and the ncopds system (October 7) and the cf_hpc and cf_nawcf systems on October 8. Work will be done between 1100Z and 2000Z each day.

RFC 6120 - In the operational NCEP Anycast DNS, set up reverse lookup zones for NCEP Active Directory (AD) networks. The Anycast DNS is used by all of NCEP. To be implemented on October 7 (1200Z – 2000Z), October 9 (1200Z – 1600Z), and October 10 (1200Z – 2000Z).

RFC 6128 - Update the EnvVars module on Mars/Venus. This change is being made because it was noticed that the variable OMP_NUM_THREADS is being overwritten in the current version of this module. The update will allow the variable to be set only if it is not already defined, rather than overwriting it. To be implemented on October 7 and 8 at 1730Z each day.

The following NCO RFCs which may affect CPC are in progress:

RFC 6023 - Implement/release NAWIPS v7.8.0. This release includes changes as detailed in the following SCNs:
https://www.weather.gov/media/notification/scn19-55byz_zonesaaa.pdf,
https://www.weather.gov/media/notification/scn19-56zones_pdtaaa.pdf,
https://www.weather.gov/media/notification/scn19-57zones_abq_nmaaa.pdf, and
https://www.weather.gov/media/notification/scn19-58zones_ne_wy_w_sdaaa.pdf.
It also includes updated PSA (Predictive Service Area) maps/bounds/tables files.
Full release notes are available upon request. This was released to the remote Centers on October 3. The implementation dates are October 10 for the NCWCP Centers: OPC (1200Z – 1300Z), SDM (1300Z – 1400Z), WPC Workstations and NESDIS (1400Z – 1500Z), and NCO Dataflow (1500Z – 1600Z); and October 17 at 1400Z for the WPC Compute Farm.

RFC 6074 – On WCOSS: A) prepare the Phase-3 Infiniband core switches and Ethernet enterprise router for the installation of new Phase-3.5 compute, service, and storage resources; and B) install the latest RHEL 7.5 updates on the Phase-3 WCOSS Dell systems. Implementation began in Orlando on September 25 and was completed on September 27. To be implemented in Reston on October 14 and 15 (tentative).

Environmental Modeling Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of October 7, 2019:

None

The following RFCs are in progress:

None

The following NCO RFCs which may affect EMC are scheduled to be implemented the week of October 7:

RFC 6119 - Migrate NFS volumes from phase 1 NetApp to IDP cluster. There will be downtime of 20 min to 1 hour per volume during the cutover process. This is a multi-day RFC. Migrations will be performed on October 7 and 8. This week's changes are being made for NCO/SDB and the ncopds system (October 7) and the cf_hpc and cf_nawcf systems on October 8. Work will be done between 1100Z and 2000Z each day.

RFC 6120 - In the operational NCEP Anycast DNS, set up reverse lookup zones for NCEP Active Directory (AD) networks. The Anycast DNS is used by all of NCEP. To be implemented on October 7 (1200Z – 2000Z), October 9 (1200Z – 1600Z), and October 10 (1200Z – 2000Z).

RFC 6121 - On WCOSS, update the gefs_forecast ecflow scripts to change the messaging timeout value through "DAPL_NETWORK_TRESHOLD". Also, the gefs package is compiled and loaded with the latest ips version 18.0.5.274. This change is being made because the gefs_forecast jobs started failing frequently with an "Internal MPI error" ever since the jobs were implemented on WCOSS Phase3 on August 21. This failure is occurring because the gefs forecast is running with large core count with complex messaging and sometimes doesn't complete within the default max time and is then killed. To be implemented on October 7 at 1330Z.

RFC 6128 - Update the EnvVars module on Mars/Venus. This change is being made because it was noticed that the variable OMP_NUM_THREADS is being overwritten in the current version of this module. The update will allow the variable to be set only if it is not already defined, rather than overwriting it. To be implemented on October 7 and 8 at 1730Z each day.

The following NCO RFCs which may affect EMC are in progress:

RFC 6023 - Implement/release NAWIPS v7.8.0. This release includes changes as detailed in the following SCNs:
https://www.weather.gov/media/notification/scn19-55byz_zonesaaa.pdf,
https://www.weather.gov/media/notification/scn19-56zones_pdtaaa.pdf,

https://www.weather.gov/media/notification/scn19-57zones_abq_nmaaa.pdf, and https://www.weather.gov/media/notification/scn19-58zones_ne_wy_w_sdaaa.pdf. It also includes updated PSA (Predictive Service Area) maps/bounds/tables files. Full release notes are available upon request. This was released to the remote Centers on October 3. The implementation dates are October 10 for the NCWCP Centers: OPC (1200Z – 1300Z), SDM (1300Z – 1400Z), WPC Workstations and NESDIS (1400Z – 1500Z), and NCO Dataflow (1500Z – 1600Z); and October 17 at 1400Z for the WPC Compute Farm.

RFC 6074 – On WCOSS: A) prepare the Phase-3 Infiniband core switches and Ethernet enterprise router for the installation of new Phase-3.5 compute, service, and storage resources; and B) install the latest RHEL 7.5 updates on the Phase-3 WCOSS Dell systems. Implementation began in Orlando on September 25 and was completed on September 27. To be implemented in Reston on October 14 and 15 (tentative).

Ocean Prediction Center

The following accelerated items were implemented this past week:

RFC 1238 - Prepared NAWIPS Stored Procedure File (SPF) directories for new OPC forecasters. The affected files were 'spf_personalize.csh' and 'new_employee_setup.csh'. Ensured the "backup2" NAWIPS workstation received the updates. Implemented on October 1 at 1500Z.

The following approved changes will be implemented the week of October 7, 2019:

RFC 1239 – 'include_warning_table.php' v19.10.07 - Modify the event-driven Hurricane Force warning notice to remove empty rows or columns from the web table, to simplify the presentation of information on ocean.weather.gov. To be implemented on October 7 at 1330Z.

RFC 1240 – 'Loops/index.php' v19.10.07 - Fix a bug reported by a user in the OPC Loops pages. The php code is checking the number of available images in the user-defined number of days. For products issued only once per day, this is exactly 1. If fewer than 1 image is available, the page displays an error message. If there is more than one image, the page displays the images. To fix the bug that occurs when there's only 1 image, add a check to see if there is exactly one image, adding a note that one image looping will render the loop control irrelevant. To be implemented on October 7 at 1400Z.

The following RFCs are in progress:

None

The following NCO RFCs which may affect OPC are scheduled to be implemented the week of October 7:

RFC 6119 - Migrate NFS volumes from phase 1 NetApp to IDP cluster. There will be downtime of 20 min to 1 hour per volume during the cutover process. This is a multi-day RFC. Migrations will be performed on October 7 and 8. This week's changes are being made for NCO/SDB and the ncopds system (October 7) and the cf_hpc and cf_nawcf systems on October 8. Work will be done between 1100Z and 2000Z each day.

RFC 6120 - In the operational NCEP Anycast DNS, set up reverse lookup zones for NCEP Active Directory (AD) networks. The Anycast DNS is used by all of NCEP. To be implemented on October 7 (1200Z – 2000Z), October 9 (1200Z – 1600Z), and October 10 (1200Z – 2000Z).

RFC 6134 - Correct the NHC AT5 Forecast Track Layer in IDP-GIS. This layer is currently not available in IDP-GIS. To be implemented in Boulder on October 9 and in College Park on October 10 at 1400Z each day.

The following NCO RFCs which may affect OPC are in progress:

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https://www.weather.gov/media/notification/scn19-56zones_pdtaaa.pdf,
https://www.weather.gov/media/notification/scn19-57zones_abq_nmaaa.pdf, and
https://www.weather.gov/media/notification/scn19-58zones_ne_wy_w_sdaaa.pdf.
It also includes updated PSA (Predictive Service Area) maps/bounds/tables files. Full release notes are available upon request. This was released to the remote Centers on October 3. The implementation dates are October 10 for the NCWCP Centers: OPC (1200Z – 1300Z), SDM (1300Z – 1400Z), WPC Workstations and NESDIS (1400Z – 1500Z), and NCO Dataflow (1500Z – 1600Z); and October 17 at 1400Z for the WPC Compute Farm.

RFC 6074 – On WCOSS: A) prepare the Phase-3 Infiniband core switches and Ethernet enterprise router for the installation of new Phase-3.5 compute, service, and storage resources; and B) install the latest RHEL 7.5 updates on the Phase-3

WCOSS Dell systems. Implementation began in Orlando on September 25 and was completed on September 27. To be implemented in Reston on October 14 and 15 (tentative).

Weather Prediction Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of October 7, 2019:

None

The following RFCs are in progress:

None

The following NCO RFCs which may affect WPC are scheduled to be implemented the week of October 7:

RFC 6119 - Migrate NFS volumes from phase 1 NetApp to IDP cluster. There will be downtime of 20 min to 1 hour per volume during the cutover process. This is a multi-day RFC. Migrations will be performed on October 7 and 8. This week's changes are being made for NCO/SDB and the ncopds system (October 7) and the cf_hpc and cf_nawcf systems on October 8. Work will be done between 1100Z and 2000Z each day.

RFC 6120 - In the operational NCEP Anycast DNS, set up reverse lookup zones for NCEP Active Directory (AD) networks. The Anycast DNS is used by all of NCEP. To be implemented on October 7 (1200Z – 2000Z), October 9 (1200Z – 1600Z), and October 10 (1200Z – 2000Z).

RFC 6135 - Increase the retention of WPC Snow Density files on NCOSRV. This change will ensure the latest cycle of the data remains on disk for at least 6 hrs before being cleaned up. To be implemented on October 10 at 1300Z.

The following NCO RFCs which may affect WPC are in progress:

RFC 6023 - Implement/release NAWIPS v7.8.0. This release includes changes as detailed in the following SCNs:
https://www.weather.gov/media/notification/scn19-55byz_zonesaaa.pdf,
https://www.weather.gov/media/notification/scn19-56zones_pdtaaa.pdf,
https://www.weather.gov/media/notification/scn19-57zones_abq_nmaaa.pdf, and
https://www.weather.gov/media/notification/scn19-58zones_ne_wy_w_sdaaa.pdf.
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Please note that security-related RFCs are never listed in the RFC memo.

---- OPERATIONAL ANNOUNCEMENTS ----

The CPC/OPC/WPC Configuration Management documents are available at
https://sites.google.com/a/noaa.gov/nws-ncep-nco-cm/.

Please review these documents if you have questions prior to submitting changes for CPC/OPC/WPC configurable items.

 Users who wish to view their network utilization via the Scrutinizer appliance may request access from NCO/IWSB. Please send an account request to the NCWCP Helpdesk at NCWCP.helpdesk@noaa.gov.